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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/124,805	07/29/1998	JOHN O. LAMPING	D/98205Q1	7115

22470 7590 01/13/2004

HAYNES BEFFEL & WOLFELD LLP
P O BOX 366
HALF MOON BAY, CA 94019

EXAMINER	
HAVAN, THU THAO	

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 01/13/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/124,805	LAMPING ET AL.	
	Examiner	Art Unit	
	Thu-Thao Havan	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **17-44** are rejected under 35 U.S.C. 102(b) as being anticipated by Lamping et al. (US Patent No. 5,619,632).

Re claim **17**, Lamping teaches A.) a method of laying out a node-link structure in space with negative curvature (col. 16, lines 45-63; col. 25, lines 52-62; fig. 17). In the specification of the application, page 11 and lines 3-7, the inventors claim the negative curvature as a space in which parallel lines diverge...there are multiple other straight lines parallel to the given straight line. An example of a space with negative curvature is hyperbolic n-space. Therefore, Lamping teaches a negative curvature when he discloses representation includes link features that are lines representing links between nodes in a node-link structure and node features, some of which are rectangles with characters in them but others of which are intersections or ends lines as in figures 14-16. Particularly, figure 17 discloses negative curvature when there are parallel lines of parents and children nodes that diverge into many other nodes; *B.) obtaining nearby relationship data for an element in the structure, the nearby relationship data indicating information about nearby node-link relationships, the nearby relationship data excluding*

relationships with at least one element of the node-link structure (col. 17, line 20 to col. 18, line 50; figs. 6-7). In other words, Lamping teaches a transformed position for each node in the node-link structure including those that are treated as too near the edge. He discloses obtains layout data indicating a position in a layout space for each node in a node-link structure. The layout space can, for example, be a hyperbolic plane. He teaches initializing a current transformation that can be performed on the layout data to obtain transformed positions. The initial current transformation could, for example, be a null transformation that does not change the positions of the nodes in the layout space. His system then performs the current transformation on the layout data to obtain transformed data indicating transformed positions for each node; and C.) based on only the nearby relationship data, and not on the position of any other element in the structure, obtaining layout data indicating the element's position relative to a parent in the space with negative curvature (col. 21, line 11 to col. 25, line 23; col. 16, lines 45-63; col. 32, lines 19-35; col. 25, lines 52-62; col. 4, lines 44-50; fig. 5-7 and 17). Lamping teaches the step of the lower level node features that share a parent node feature having centers of area positioned in order approximately along an arc with sufficiently similar spacing from the center of area of the parent node feature corresponds to the step of obtaining layout data indicating the element's position relative to a parent in the space. The area of positioning the nodes indicates the element's position. In addition, the lower level nodes having a parent node correspond to obtaining the nearby relationship. In data structure, the parent and the child nodes (lower level nodes) are the nearest relationships between nodes. As for obtaining

layout data based on the nearby relationship, Lamping teaches a node-link structure to obtain layout data. He teaches the layout of the data when he indicates the position of the nodes in a data structure.

Re claims **18-20 and 41**, Lamping discloses the space with negative curvature is a hyperbolic space (col.17, lines 28-44, col. 16, lines 53-62; col. 20, lines 20-52). Lamping teaches a negative curvature as a hyperbolic space when he discloses the layout space is a hyperbolic plane.

Re claims **21-23, 30-32, and 35**, Lamping discloses the radii and angles for the set of children to obtain a position displacement and an angle displacement between the parent and the element (col. 23 and 24; fig. 13).

Re claims **24, 33-34, and 36**, Lamping discloses the nearby node-link relationships include only relationships among the parent and the parent's children and grandchildren (col. 25, lines 24-50; fig. 13).

Re claims **25 and 37-40**, Lamping discloses the method is performed in each of a series of iterations (col. 19, lines 61-67; col. 20 and 21; fig. 12).

Re claims **26-27**, the limitations of claims 26-27 are analyzed as discussed with respect to claim 17 above.

Re claims **29 and 42-44**, the limitations of claims 29 and 42-44 are identical to claim 17 above except for calculating element's position in the space with negative curvature and storing the positions for each element... (col. 23, line 56 to col. 24, line 65; col. 16, lines 25-62; figs. 13-21). Therefore, claims 29 and 42-44 are treated the same as discussed with respect to claim 17 above. Lamping teaches implementing by

calculating a radial gap for the position of each node, then comparing it with a limit to determine whether it is a position too close to the unit disk's perimeter. In preparation for a recursive call to DoNode, the system begins each iteration by setting the previous node feature's position to the position and by setting the previous position's radial gap to the radial gap calculated. These values are set locally within the iteration. Then, the system makes a call to DoNode for the next child with the child's handle and with the parent's position. On a further note, the system can access instruction data stored in memory and transfer the instruction data over network to processor so that processor can receive instruction data from network. Instruction data can then be stored in memory or elsewhere by processor, and can be executed.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062. The examiner can normally be reached on Monday to Thursday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

TTH
Art Unit 2672
December 29, 2003

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600